

Attachment
11

Stormwater Flood Management Grant Proposal
City of Redwood City
Program Preferences

Attachment 11 consists of the following items:

- ✓ **Program Preferences.** Attachment 11 contains detailed information on how the proposal will meet the program preferences described in the IRWM Guidelines.

Program Preferences met by Proposal

The project in this Proposal meets two of the eight Program Preferences identified in the Proposition 84 & Proposition 1E IRWM Guidelines. This attachment details the specific Program Preferences that are met by the Project, the certainty that the Proposal will meet Resource Management Strategies, the funding targets met by the proposed project, the certainty that the Proposal will assist in meeting the Program Preferences, and the breadth and magnitude to which the Program Preferences will be met. Table 11-1, below, identifies the Program Preferences which the project will assist in meeting.

Table 11-1 Assist in Meeting Program Preferences

Project	Assist in Meeting Program Preferences							
	Include Regional Projects or Programs	Integrates Projects within an Identified Region or IRWM Subregion	Contribute to Attainment of one or more CALFED objectives	Effectively resolves significant water-related conflicts within or between regions	Address Critical Water Supply or Quality Needs of DAC	Effectively integrate water management with land use planning	Eligible for SWFM funding	Address Statewide Priorities
Bayfront Regional Flood Protection System Improvements and 5 th Avenue Pump Station Renovation Project							✓	✓

The Project is eligible for SWFM funding because:

- The project is not part of the State Plan Flood Control (SPFC);
- The project is designed to manage stormwater runoff to reduce flood damage;
- The project yields multiple benefits including water quality improvements and reduction in sedimentation; and
- The project is consistent with the applicable regional Water Quality Control Plan to manage stormwater runoff to reduce flood damages.

One of the Program Preferences is to “Address Statewide Priorities” and the project in this Proposal addresses one or more Statewide Priorities, as detailed in Table 11-2 below.

Table 11-2: Address Statewide Priorities

Project	Assist in Meeting Program Preferences							
	Drought Preparedness	Use and Reuse Water More Efficiently	Climate Change Response Actions	Expand Environmental Stewardship	Practice Integrated Flood Management	Protect Surface Water Quality and Groundwater Quality	Improve Tribal Water and Natural Resources	Ensure Equitable Distribution of Benefits
Bayfront Regional Flood Protection System Improvements and 5 th Avenue Pump Station Renovation Project			✓		✓	✓		

The project will also address three Statewide Priorities:

- **Climate Change Response Actions-** by installing sheet pile floodwalls to raise the lower elevations of the Bayfront canal to prevent rising sea-levels from flooding the City and its surrounding neighbors.
- **Practice Integrated Flood Management-** by preventing flooding and providing other benefits such as improved flood protection. The project will increase the pump station capacity from 30 to 270 cubic feet per second, thus increasing the volume of stormwater that is pumped from the five stormwater contributing sub-basins into the Bayfront Canal. Also, sheet pile floodwalls along the lower elevations of the Bayfront Canal will be installed increasing their height to the base flood level of 7 feet.
- **Protect Surface Water Quality** – by preventing future floods from causing sanitary sewer overflows (SSO) and protecting the Bay’s water quality.

Certainty that the Proposal will meet Resource Management Strategies

The Project will implement the following Resource Management Strategies identified in the California Water Plan Update 2009:

- **Flood Risk Management** – by applying multiple strategies that address not only flood management but other water resource issues such as water quality. The project will use a structural approach, installation of sheet pile floodwall and upsized pump station, to provide protection from high tides and large rain events by improving the ability of the Bayfront Canal to convey larger stormwater flows.

Funding Targets met by Proposed Project

Based on Proposition 1E funding requirements the Project meets three of the four funding targets listed in the Proposition 84 and Proposition 1E guidelines. The three applicable funding targets are:

1. \$100 million for projects that address immediate public health and safety needs and strengthen existing flood control facilities to address seismic safety issues.
2. \$20 million for urban stream SWFM projects to reduce the frequency and impacts of flooding in watersheds that drain to the San Francisco Bay.

3. Not less than \$15 million will be allocated for grants consistent with a Stormwater Resources Plan developed pursuant to Part 2.3 (commencing with Section 10560) of Division 6 of the CWC; or, an IRWM Plan that includes the Stormwater Resources Plan requirements specified in CWC Section 10562.

The Project meets the first funding target by reducing flooding events, improving the public health and safety concerns of all residential and commercial neighborhoods, and strengthening the 5th Avenue pump station to increase higher level of reliability during a seismic event. The Project meets the second funding target by increasing the capacity of stormwater that can be drained to San Francisco Bay via improvements to the Bayfront Canal and upsizing of the 5th Avenue pump station. The Project meets the third funding target via existing planning documents, local, and regional plans that constitute as a functional equivalent of a Stormwater Resources Plan.

Certainty that the Proposal will meet Program Preferences

Both project components have undergone extreme scrutiny through initial development of the project and following the Proposal Solicitation Package; therefore, there is great certainty the project selected for this proposal will meet the Program Preferences. The project will meet criteria designed to address Proposition 1E and achieve the Bay Area IRWM Plan objectives. The project has the ability to achieve its required benefits, is technically feasible, has secured 50% of matching funds, and is implementable within a reasonable length of time after the grant award date.

The existing data and studies that demonstrate the project is technically sound and likely to be implemented are listed below in Table 11-3.

Table 11-3: Existing Data and Studies

Project	Existing Data and Studies
Bayfront Regional Flood Protection System Improvements and 5 th Avenue Pump Station Renovation Project	<ul style="list-style-type: none"> • Bayfront Canal Drainage System, City of Redwood City Council Study Session, November 22, 2010. • Flood Management in Bayfront Canal Drainage Basin, Stanford Hospitals & Clinics, November 22, 2010. • Bayfront Canal Improvement Project Design Development Reports, Winzler and Kelly, December 2003. • Geotechnical Engineering Investigation Report, Winzler and Kelly, 2003. • Biological Resources Constraints Analysis, Winzler and Kelly, 2003. • Feasibility Study of Increasing Existing Fifth Avenue Storm Drain Pump Station Capacity, BFK Engineers, 2006.

Breadth and Magnitude to Which Program Preference Will be Met

The breadth and magnitude to which the Program Preferences be gauged by the project meeting the IRWM Plan goals, as described in detail in Attachment 3 Work Plan. The IRWM Plan articulated six goals, three of which the project will meet. The goals of the Bay area IRWM Plan are as follows:

- Promote economic, social, and environmental sustainability
- Improve water supply reliability
- Protect and improve hydrologic function
- Protect and improve quality of water resources
- Protect public health, safety and property
- Create, protect, enhance, and maintain environmental resources and habitats

Table 11-4 provides both quantitative and qualitative data on the breadth and magnitude to which the projects meet the IRWM Plan goals.

Table 11-4: Breadth/Magnitude to which program preferences will be met.

Project	Breadth/Magnitude to which program preferences will be met	
	Eligible for SWFM funding	Address Statewide Priorities
Bayfront Regional Flood Protection System Improvements and 5 th Avenue Pump Station Renovation Project	<ul style="list-style-type: none"> The project will protect the Bay's water quality and public health from SSOs Reduction in sedimentation build-up from removal of tidal gates in Bayfront Canal 	<ul style="list-style-type: none"> Improved flood protection and flood management by implementing a multi-benefit project that will increase flood conveyance out of five sub-basins and protecting the Bay's water quality. Addressing climate change issues by installing a 7-foot floodwall along the developed side of the Bayfront Canal and both sides of a portion of the Atherton Channel.